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ORBINIIDAE (POLYCHAETA) FROM SOFT BOTTOM OF THE WESTERN COAST OF BAJA CALIFORNIA PENINSULA, MEXICO

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ABSTRACT

Seven species of Orbiniidae are reported, including a new species of *Leitoscoloplos*, characterized by the number of thoracic setigers, and the shape of the thoracic and abdominal procseses. *Leitoscoloplos normalis* is new to the Mexican coasts, and *Scoloplos* (*Leodamas*) *rubra* is new to the Pacific coast of Mexico.

About 1,300 species of polychaetes are known from Mexican waters. The Pacific side of the Baja California Peninsula is the best studied area, and the constant studies in that area have increase the number of records or new taxa. Twenty-three species of Orbiniidae are known from the Pacific coast of Mexico (Salazar-Vallejo et al., 1989).

In this paper seven species of orbiniid polychaetes are recorded from the continental shelf of the western coast of the Baja California Peninsula, from Cabo Falso to Sebastian Vizcaino Bay (23°N to 28°50'N). Samples were obtained on board the B/O EL PUMA with a Smith McIntyre and a Van Veen dredge, during seven oceanographic cruises, made in July and October of 1987–1988, February 1989, and March and September of 1990 (Table 1). The material is deposited in the polychaetological collection of the Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León (UANL).

Leitoscoloplos bajacaliforniensis new species
(Fig. 1a–c)

Material Examined.—F-4 (Holotype UANL 0691), F-4 3 Paratypes (UANL 0207), F-11 1 specimen (UANL 0208), F-21 1 specimen (UANL 0209).

Description.—Holotype incomplete posteriorly, anterior portion flattened dorsoventrally, posteriorly cylindrical, thorax 2 mm wide including setae, 8 mm long for 31 setigers. Prostomium conical, sharply pointed, without eyes. Peristomium achaetous.

Thoracic setigers 17. Notopodial postsetal lobes triangular increasing in size along thorax. Neuropodial postsetal lobes mammiliform, with a triangular medial processes (Fig. 1b). Without subpodal or stomach papillae.

Branchiae from setiger 12, first one small, inconspicuous papilliform, them increasing in size posteriorly. Branchiae blunt pointed, swollen asymmetrically subdistally (Fig. 1c). Lateral margins conspicuously ciliated.

Abdominal notopodial postsetal lobes sharply pointed swollen subdistally; neuropodia distally bilobed, inner lobe more developed, with marked notch at insertion of subpodal flange (Fig. 1c). Pygidium unknown.

Remarks.—Mackie (1987) included the species of *Leitoscoloplos* into 5 groups, principally based on the number of thoracic setigers, and the shape of the thoracic neuropodial lobes and branchiae. *L. bajacaliforniensis* belongs to group three, with species: *L. chilensis* (Hartman-Schröder 1965), *L. mammosus* Mackie (1987), *L. mexicanus* (Fauchald 1972), and *L. pugettensis* (Pettibone 1957). All these

Table 1. Sedimentological and location data of the sampling stations. a. Station number; b. Latitude (N); c. Longitude (W); d. Depth (m); e. Sand (%); f. Silt (%); g. Clay (%); h. Organic matter (%); i. Temperature (°C); j. Date.

a	b	c	d	e	f	g	h	i	j
A-6	26°01.0′	112°50.6′	95	—	—	—	—	—	09/07/87
A-8	26°11.0′	112°54.2′	55	—	—	—	—	—	13/07/87
A-10	24°11.4′	111°23.5′	74	—	—	—	—	—	17/07/87
B-1	24°13.3′	111°31.9′	120	77.2	16.6	6.1	—	—	07/10/87
B-15	25°12.1′	112°16.1′	46	81.7	15.5	2.8	—	—	17/10/87
B-18	26°03.2′	112°33.8′	65	46.4	47.8	5.8	—	—	17/10/87
B-20	24°15.8′	111°49.9′	101	71.3	24.2	4.5	—	—	18/10/87
B-21	24°17.4′	111°52.0′	97	73.9	22.2	3.8	—	—	18/10/87
C-3	24°16.1′	111°35.0′	107	39.2	53.3	7.5	—	15	25/07/88
C-5	24°09.3′	111°56.1′	126	45.9	48.6	5.4	—	15	26/07/88
C-15	26°11.1′	112°34.0′	57	48.6	51.0	3.3	—	17	1/08/88
C-16	26°11.6′	112°36.1′	56	45.6	48.3	6.1	—	15	1/08/88
C-18	25°12.1′	112°16.3′	57	56.6	43.3	5.5	—	16	2/08/88
D-2	22°52.1′	110°03.5′	95	—	—	—	—	17	3/10/88
D-4	24°14.1′	111°34.6′	140	—	—	—	—	15	4/10/88
D-5	24°15.7′	111°32.2′	90	42.6	48.9	8.6	2.48	15	4/10/88
D-6	24°15.1′	111°47.1′	94	—	—	—	—	15	4/10/88
D-10	24°16.6′	111°49.6′	90	48.0	38.7	7.1	2.85	15	5/10/88
D-12	24°35.9′	112°18.4′	122	52.8	38.5	8.7	2.67	14	5/10/88
D-15	25°09.5′	112°24.3′	110	54.1	38.3	7.7	3.59	16	6/10/88
D-17	25°14.4′	112°15.6′	52	47.8	45.3	6.6	3.06	18	7/10/88
D-27	26°08.4′	112°41.5′	68	37.2	56.0	6.7	4.33	17	8/10/88
D-28	26°12.3′	112°36.3′	55	42.5	52.8	4.8	3.33	17	8/10/88
E-1	27°57.8′	114°30.3′	40	82.5	10.6	3.8	0.88	14	26/02/89
E-8	26°12.1′	112°36.5′	60	27.8	72.2	14.8	2.54	14	28/02/89
E-9	26°02.2′	112°51.2′	70	51.1	37.8	5.1	1.25	14	28/02/89
E-16	25°28.3′	112°11.2′	27	82.7	12.3	4.6	1.11	16	1/03/89
E-17	25°14.3′	112°15.7′	53	51.6	42.1	5.6	1.57	14	1/03/89
F-1	28°50.1′	115°30.1′	85	27.3	66.9	5.7	—	11.5	5/07/89
F-2	28°47.6′	114°34.7′	85	22.8	70.1	7.1	—	11.5	5/07/89
F-4	28°40.1′	114°44.1′	103	21.9	71.7	6.4	—	13.5	5/07/89
F-5	28°34.5′	115°04.1′	147	7.6	85.6	6.8	—	11	5/07/89
F-6	28°29.2′	114°38.1′	102	40.8	54.9	4.3	—	11.5	6/07/89
F-7	28°30.0′	114°40.0′	88	33.5	61.1	5.1	—	11	6/07/89
F-10	28°07.1′	115°00.1′	85	30.1	62.5	6.7	—	—	6/07/89
F-11	28°08.2′	114°34.3′	85	62.3	30.9	5.8	—	11.5	6/07/89
F-21	25°38.4′	113°01.2′	223	33.9	66.1	8.6	—	13	9/07/89
G-1	28°17.5′	114°12.9′	35	76.5	18.8	4.7	0.37	14	7/03/90
G-3	28°49.7′	114°38.6′	85	25.2	65.7	8.8	2.48	12	7/03/90
G-4	28°28.1′	114°48.1′	120	32.9	58.3	8.8	1.34	11.5	8/03/90
G-7	27°55.3′	114°50.4′	65	22.4	70.2	7.4	3.32	12	8/03/90
G-8	28°11.6′	115°03.0′	95	14.5	76.3	9.2	2.26	11.5	8/03/90

species have sharply pointed prostomia, thoracic neuropodial postsetal lobes mammiliform, abdominal neuropodia bilobed, and subpodal flanges well developed.

L. bajacaliforniensis resembles *L. mexicanus* in relation to the introduction and form of the branchiae, but differs in that the branchiae are not laterally ciliated. The species differ in the form of the thoracic neuropodial postsetal lobes and abdominal notopodial postsetal processes. *L. bajacaliforniensis* has 17 thoracic setigers while *L. mexicanus* has 14 setigers.

Distribution.—Known from the western coast of Baja california Peninsula, 85–223 m.

Etymology.—Named for the type locality.

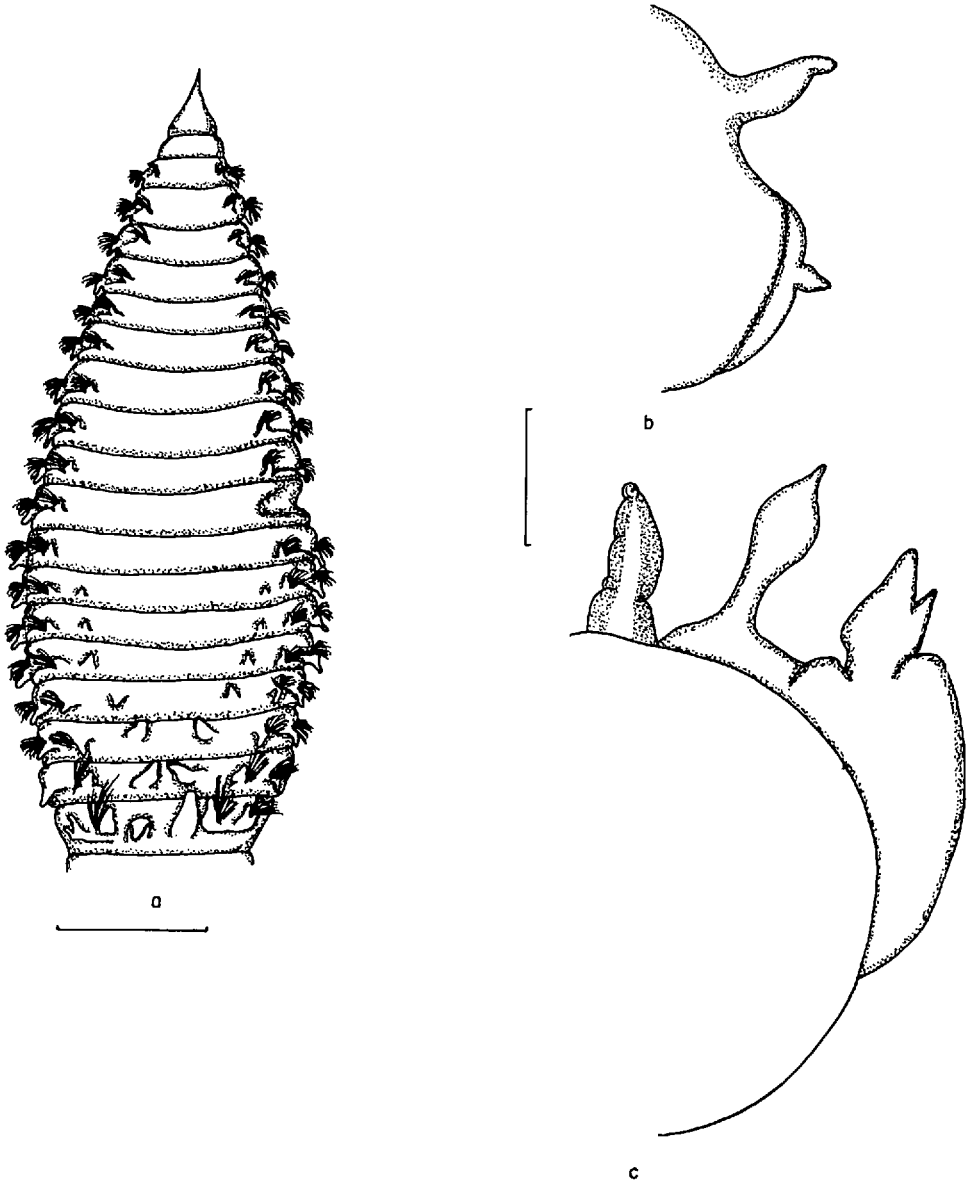

Figure 1. *Leitoscoloplos bajacaliforniensis* (Holotype) a. Anterior end, dorsal view; b. 10th thoracic parapodium (setae omitted); c. 25th abdominal parapodium. (Setae omitted). Scale lines 1 mm (a) and 0.5 mm (b–c).

Leitoscoloplos kerguelensis (McIntosh, 1885)

Scoloplos kerguelensis McIntosh, 1885: 335, Pl. 43, figs. 6–8, pl. 22A, fig. 19.
Haploscoloplos kerguelensis.—Monro, 1936: 160; Hartman, 1957: 275, Pl. 27, figs. 1–3; 1966: 9, Pl. 2, figs. 1, 2; Fauchald, 1972: 166, Pl. 34, Figs. a, b.
Leitoscoloplos kerguelensis.—Day, 1977: 223.

Material Examined.—C-3 1 specimen (UANL 0210), C-5 1 specimen (UANL 0211), C-15 2 specimens (UANL 0212), C-16 2 specimens (UANL 0213), C-18 2 specimens (UANL 0214), D-15 1

specimen (UANL 0215), D-27 1 (UANL 0216), E-7 6 specimens (UANL 0217), E-14 1 specimen (UANL 0218), E-18 2 specimens (UANL 0219).

Distribution.—Antartic and sub-antartic regions, India, Australia, Japan and western Mexico. Some of these reports could be referred to other species, so it tentatively is assigned an Indo-pacific affinity (Hartman, 1957). In Mexico it is known from Baja California Sur to Nayarit.

Leitoscoloplos normalis Day, 1977

Leitoscoloplos normalis Day, 1977: 224, fig. 1a–d.
Scoloplos normalis.—Mackie, 1987: 22, fig. 22A–F.

Material Examined.—A-8 2 specimens (UANL 0220), G-1 1 specimen (UANL 0221), G-3 1 specimen (UANL 0222), G-4 7 specimens (UANL 0223), G-7 3 specimens (UANL 0224), G-8 7 specimens (UANL 0225).

Description.—Body large with about 150 setigers. Prostomium conical without eyes. Transition between thorax-abdomen on setiger 15. Branchiae from setiger 16. Thoracic notosetae and neurosetae all crenulate capillaries; abdominal notosetae crenulate capillaries and some forked setae, abdominal neurosetae with only crenulate capillaries.

Remarks.—The specimens agree with the original description of Day (1977), all lack eyes, thoracic and abdominal noto- and neurosetae crenulate capillaries. Branchiae are present from setiger 16. The hooks are not present as Mackie (1987) reported.

Distribution.—Trans-pacific. Previously reported from Australia, this is the first report from America.

Leitoscoloplos pugettensis (Pettibone, 1957)

Scoloplos elongata Johnson 1901: 412, pl. 110: figs. 105–110. Not Quatrefages 1866.
Haploscoloplos elongata.—Hartman, 1944: 257; 1948: 30.
H. elongatus.—Hartman, 1957: 273, Pl. 26, Figs. 1–11; Imajima and Hartman, 1964: 274; fig. 1–5; Fauchald, 1972: 166.
Scoloplos pugettensis.—Pettibone, 1957: 162.
Leitoscoloplos pugettensis Mackie, 1987: 8; Hernández-Alcántara and Solís-Weiss, 1993: 1029.

Material Examined.—A-6 3 specimens (UANL 0226), A-10 1 specimens (UANL 0227), B-1 4 specimens (UANL 0228), B-15 3 specimens (UANL 0229), B-18 1 specimen (UANL 0230), B-20 1 specimen (UANL 0231), B-21 1 specimen (UANL 0232), D-2 1 specimen (UANL 0233), D-4 2 specimens (UANL 0234), D-5 2 specimens (UANL 0235), D-6 1 specimen (UANL 0236), D-10 1 specimen (UANL 0237), D-12 4 specimens (UANL 0238), D-17 1 specimen (UANL 0239), D-27 1 specimen (UANL 0240), D-28 4 specimen (UANL 0241), E-1 1 specimen (UANL 0242), E-7 7 specimens (UANL 0243), E-8 4 specimens (UANL 0244), E-9 1 specimen (UANL 0245), E-16 2 specimens (UANL 0246), E-17 1 specimen (UANL 0247), E-18 7 specimens (UANL 0248).

Remarks.—In the specimens reported by Hartman (1957), the branchiae are present from setigers 14–16, and the thorax-abdomen transition on setigers 19–21. In the present material, branchiae are present from setigers 14–15, and the thorax-abdomen transition in setigers 16–17.

Distribution.—Trans-Pacific, previously reported from Japan (doubtfal according to Mackie, 1987), Alaska to western Mexico, and from Baja California, Baja California Sur and Sonora (Gulf of California).

Scoloplos armiger (Müller, 1776)

Scoloplos armiger Fauvel, 1927: 20, fig. 6k–q; 1953: 307; Rioja, 1931: 24; Pettibone, 1963: 292; Day, 1967: 554, fig. 23.6.k–n; Hartman, 1969: 47, figs. 1–6; Padilla-Galicia, 1984: 29; Hernández-Alcántara, 1992: 70.

Material Examined.—F-1 6 specimens (UANL 0249), F-2 1 specimen (UANL 0250), F-4 8 specimens (UANL 0251), F-5 4 specimens (UANL 0252), F-6 3 specimens (UANL 0253), F-7 7 specimens (UANL 0254).

Distribution.—Cosmopolitan, known from western Europe, west coast of USA. In Mexico, it has been reported from Baja California Sur, Sinaloa and Nayarit. This is the first report from Baja California.

Scoloplos treadwelli Eisig 1914

Aricia cirrata Treadwell, 1901: 201, Figs. 54–57. Not Ehlers, 1897.
Scoloplos treadwelli.—Augener, 1927: 69; Hartman, 1957: 283; Marrón-Aguilar, 1976: 104; Maciolek and Holland, 1978: 164; Varela-Hernández, 1993: 15.

Material Examined.—F-1 6 specimens (UANL 0255), F-2 1 specimen (UANL 0256), F-4 8 specimens (UANL 0257), F-5 4 specimens (UANL 0258), F-6 3 specimens (UANL 0259), F-7 7 specimens (UANL 0260), F-11 1 specimens (UANL 0261).

Distribution.—Amphi-American, known from Puerto Rico, Gulf of Mexico, and western Mexico, where it is reported from Guerrero, Jalisco and Campeche. This is the first report from Baja California and Baja California Sur.

Scoloplos (Leodamas) rubra (Webster, 1879)

Aricidea rubra Webster, 1879: 253, Pl. 9, Figs. 123–126.
Scoloplos (Leodamas) rubra Hartman, 1951: 75, Pl. 20, Figs. 1–6; 1957: 291, Pl. 32, figs. 1–6; Marrón-Aguilar, 1976: 102; Taylor, 1984: 1.29.

Material Examined.—F-10 2 specimens (UANL 0262).

Distribution.—Known from the eastern coast of United States and Gulf of Mexico. This is the first report from the Pacific coast of Mexico.

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